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of the upper surface and the lower surface of the strip to be formed into the articles by the article forming unit; and

a control unit in communication with the laser unit, the laser unit being controlled so that the laser engravings are provided on at least one of the upper surface and the lower surface of the strip when the strip is between the periods of rapid movement.

91. (New) A method of manufacturing articles to be included in cans, comprising:

feeding a metal strip having an upper surface and a lower surface into an article forming unit, said strip being fed in periods of rapid movement; and

providing at least one of the upper surface and the lower surface of the strip with laser engravings from a laser unit when the strip is in between the periods of rapid movement and before the strip is fed into the article forming unit where the articles are formed, said laser engravings forming marks on at least one of the upper surface and the lower surface of the strip.

REMARKS

Claims 44-91 are pending. By this Amendment, the specification is amended and claims 1-43 are cancelled in view of new claims 44-91. A new abstract of the disclosure in compliance with U.S. format is also provided. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicant appreciates that Applicant's claim for priority is acknowledged. The certified copy of the priority document was filed on July 12, 2000. Kindly acknowledge receipt thereof.

Claims 4-17 and 21-36 were objected to as being improper multiple dependent claims. In this Amendment, original claims 4-17 and 31-36 are replaced with claims following proper dependent format. Withdrawal of the objection is respectfully requested.

In regard to paragraph 4 of the Office Action, Applicant filed a Request For Corrected Filing Receipt on October 23, 2000, eliminating reference to previous U.S. applications, including Appln. Ser. No. 08/069,200. Therefore, this application is not a continuation of the previous abandoned application. With regard to paragraph 5 of the Office Action, Application PCT/SE99/00692 was withdrawn on October 8, 2000.

Claims 1, 3, 18, 20, 42 and 43 were rejected under 35 U.S.C. §102(b) over Atkinson. This rejection is respectfully traversed in as much as it may apply to new independent claims 44, 63, 83 and 89.

With respect to claim 44, Atkinson is drawn to plating strip metal and therefore does not teach a method of manufacturing articles to be included in cans. Atkinson is not concerned with the field of can production. Also, Atkinson does not teach providing at least one of the upper and lower surfaces of the strip with laser engravings from a laser unit when the strip is in an immobilized condition before the strip is fed into the article forming unit. Atkinson discloses the use of a laser in a continuous processing line to provide a linear marking in a longitudinal direction of a continuous strip of metal. See, col. 2, lines 57-65.

Further, Atkinson does not teach the apparatus of claim 63, including a strip feeder between the supply and the article forming unit that intermittently moves the strip into the article forming unit such that the strip is in an immobilized condition between periods of intermittent movement, a laser unit, and a control unit in communication with the laser unit. The laser unit is controlled so that the laser

engravings are provided on at least one of the upper and lower surfaces of the strip when the strip is in the immobilized condition between the intermittent periods of movement of the strip.

Further, as Atkinson is not concerned with the field of can production, Atkinson does not teach an opening tab to be fastened on an end of a can and having laser engraved marks on at least one of a top and bottom surface thereof, as recited in claim 83.

Finally, Atkinson does not teach a method for creating an engraved laser mark on a beverage can using a laser, the method including producing a beam with the laser that creates at least one laser engraved mark on an opening tab for a can end to be included in the beverage can, as recited in claim 89.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 40 and 41 were rejected under 35 U.S.C. §102(b) over Kazuyoshi et al. (Japanese H8-53121). However, original claims 40 and 41 are cancelled by this Amendment and have no corresponding replacement claims amongst claims 44-89. Further, Kazuyoshi does not teach a can (claim 88) or a can end (claim 87) that includes the opening tab as defined in claim 83, from which claims 87 and 88 depend. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 2 and 19 were rejected under 35 U.S.C. §103(a) over Atkinson in view of Kubacki et al. This rejection is respectfully traversed.

As acknowledged in the Office Action, Atkinson does not teach laser marks that are applied while the strip material is held stationary. In order to make up for this deficiency, the Office Action points to Kubacki, which shows a system in which indicia is stamped into sheet metal subsequently used in the production of tabs of

aluminum cans. Kubacki is the type of prior art discussed on pages 2 and 3 of the present specification and does not mention any other techniques for providing the desired indicia.

Atkinson and Kubacki are not combinable because they are drawn to mutually exclusive structures. Atkinson discusses equipment for plating strip metal, not equipment for producing cans, as in Kubacki. Further, Atkinson teaches that laser engravings should be provided during constant movement of the strip. According to Atkinson, one of the advantages of the disclosed method and the apparatus is that they "can be used without interruption of continuous strip processing" which points away from the subject matter of claims 44 and 63, which relate to intermittent strip processing. See col. 2, ll. 24-27. Moreover, Kubacki and Atkinson could not have been combined without the benefit of Applicant's disclosure and impermissible hindsight. There is no motivation for picking and choosing among the various elements of Atkinson and Kubacki, to the exclusion of other elements, to arrive at the claimed combination.

Further, the Examiner states that one motivation to combine Kubacki with Atkinson is that a higher accuracy automatically follows from performing the laser engraving operation when the strip is held stationary. Assuming arguendo that this statement is true, Applicant respectfully submits that the skilled person in this art would not have been motivated by Atkinson to combine that teaching with Kubacki to try this option. Specifically, the underlying desire for high production speed in the field of can production (discussed in detail in the present application) would rather lead the skilled person in the art to minimize any immobilization of the strip. Thus, the excellent results achieved by the claimed intermittent system are unexpected in view of the potential difficulties.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 37-39 were rejected under 35 U.S.C. §103(a) over Baker (Australian Patent No. 81794/94) in view of Atkinson. This rejection is respectfully traversed.

Baker, like Kubacki, discusses an opening tab for a beverage can having markings provided by stamping. The marking of tabs by stamping presents several challenges: it is difficult to provide the markings on the small tab surface (often leading to the use of larger tabs); it might be difficult to mark coated surfaces; and if there is a need for frequent change in tooling, the stamping machinery can be very complicated and/or difficult to handle. The situation is even worse when the opening tabs are to be provided with traceability markings, as discussed in the present application. Traceability marks are indicia showing the exact production time for each single opening tab, and they are updated every hour or preferably every minute (see claims 85 and 86).

Further, Baker mentions additional problems of the stamping technique: deformation and distortion of the strip material during the stamping operation, necessitating additional pressing stages after the stamping stage (page 6, ll. 17-24), as well as reduced tab strength (page 6, ll. 26-34). Thus, the opening tabs in Baker have several disadvantages.

The skilled person has no motivation to combine Baker with Atkinson to overcome these disadvantages. Atkinson belongs to a different technical field, and is focused on producing longitudinal lines, not markings in the sense of the present invention. Further, Baker points away from using non-contact marking techniques such as printing. See page 5, lines 23-30. Thus, the skilled person is not motivated to consider other non-contact marking techniques such as laser marking.

In relation to the opening tabs of Baker, the opening tab according to new claim 83 provides the advantages that the opening tab can exhibit distinctive, permanent markings, even on very limited areas. The markings can be provided with minimum (or no) distortion or deformation of the tabbed material, and without jeopardizing the strength of the tab. Further, the layout of the laser markings on the tabs can be easily changed, without the need for substantial change in the production apparatus. Thus, the claimed opening tab can include marks indicative of, for example, the exact production time (see new claims 85 and 86). Alternatively, the opening tab can present very advanced promotional marks (see new claim 88), for example, to indicate a winner in a lottery, where the frequency (or layout) of tabs indicating a winner can be easily changed during production, without the need for extensive change in the production apparatus. Similar remarks apply to new method claim 89.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

New claims 90 and 91 are also provided for consideration.

Finally, Applicant requests that the Examiner provide initialed copies of the Form PTO-1449's filed with Applicant's Second, Third and Fourth Information Disclosure Statements filed on July 12, 2000, August 10, 2000, and September 14, 2000, respectively.

In view of the above amendments and remarks, Applicant submits that all of the claims are patentable and that the entire application is in condition for allowance.

Should Examiner Coan believe that anything further is desirable to place the application in better condition for allowance, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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